PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Masahide MIURA

Attn: PCT Branch

Application No. New U.S. Patent Application

Filed: August 16, 2006

Docket No.: 129110

For:

METAL OXIDE PARTICLE, PRODUCTION PROCESS THEREOF AND

EXHAUST GAS PURIFYING CATALYST

TRANSMITTAL OF THE ANNEXES TO THE INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Attached hereto are the annexes to the International Preliminary Report on Patentability (Form PCT/IPEA/409). The attached material replaces the claims in their entirety from page 21 to page 22.

Respectfully submitted

James A. Oliff

Registration No. 27,075

William P. Berridge Registration No. 30,024

JAO:WPB/nxy

Date: August 16, 2006

OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, Virginia 22320 Telephone: (703) 836-6400 DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension

necessary for entry;
Charge any fee due to our

Deposit Account No. 15-0461

- 21 - IAPS REC'S PCT/PTO 16 AUG 2006

CLAIMS

1 (Amended). A metal oxide particle comprising a core part and a surface layer,

wherein the molar fraction of cerium and zirconium constituting a ceria-zirconia solid solution in the core part is higher than the molar fraction of the cerium and zirconium constituting a ceria-zirconia solid solution in the surface layer;

wherein the molar fraction of the metal constituting the second metal oxide in the surface layer is higher than the molar fraction of the metal constituting the second metal oxide in the core part; and

wherein the second metal oxide is selected from the group consisting of alumina, zirconia, titania and ceria.

- 2. The metal oxide particle according to claim 1, wherein said core part and said surface layer each comprises a plurality of primary particles.
- 3. The metal oxide particle according to claim 1 or 2, wherein said second metal oxide is ceria.
- 4. The metal oxide particle according to claim 1 or 2, wherein said second metal oxide is zirconia.
- 5. The metal oxide particle according to claim 3 or 4, wherein said surface layer further comprises an oxide of at least one metal selected from the group consisting of alkaline earth metals and rare earths.
- 6. An exhaust gas purifying catalyst comprising a noble metal supported on the metal oxide particle according to any one of claims 1 to 5.
- 7. An exhaust gas purifying catalyst comprising platinum supported on the metal oxide particle according to claim 3.

- 8. An exhaust gas purifying catalyst comprising rhodium supported on the metal oxide particle according to claim 4.
- 9 (Amended). A process for producing the metal oxide particle according to claim 1, the process comprising:

providing a sol containing at least a population of ceria-zirconia solid solution colloid particles and a population of second metal oxide colloid particles differing in the isoelectric point with each other,

the isoelectric point of said population of ceria-zirconia solid solution colloid particles than to the isoelectric point of said population of second metal oxide colloid particles, thereby aggregating said population of ceria-zirconia solid solution colloid particles,

adjusting the pH of said sol to be closer to the isoelectric point of said population of second metal oxide colloid particles than to the isoelectric point of said population of ceria-zirconia solid solution colloid particles, thereby aggregating said population of second metal oxide colloid particles onto said population of ceria-zirconia solid solution colloid particles aggregated, and

drying and firing the obtained aggregate.